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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY  
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EXAMINER

CLARK, ISAAC R

ART UNIT PAPER NUMBER

2154

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/921,467

Applicant(s)

GOLDSTEIN, TIMOTHY L.

Examiner

Isaac R Clark

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) \*
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/31/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-24 are presented for examination.

#### ***Priority***

2. No claim for priority has been made in this application.
3. The effective filing date for the subject matter in the pending claims in this application is 08/03/2001.

#### ***Drawings***

4. The Examiner contends that the drawings submitted on 08/03/2001 are acceptable for examination proceedings.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22 and 23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Claims 22 and 23 recite the limitation "The system of claim 20". There is insufficient antecedent basis for this limitation in the claims because claim 20 does not recite a system.
8. For the purpose of examining the claims, claims 22 and 23 will be interpreted as referring to and depending on claim 21 rather than claim 20.

#### ***Claim Rejections - 35 USC § 103***

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 4, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drott et al. (US Patent 6,181,704) hereinafter Drott in view of Lo et al (US Patent 6,324,178) hereinafter Lo and further in view of Miller, Brent. Bluetooth Revealed, published September 21, 2000 by Prentice Hall (hereinafter Miller).

11. As per claim 1, Drott teaches an electronic device having digital data stored thereon, said electronic device comprising (Fig. 3 item 3): a transceiver for singly transmitting copies of packets to said at least one remote transport device and receiving communication signals from ones of said at least one remote transport devices (col. 1, lines 40-46; sends one packet and receives a 'NAK' for the packet).

12. Drott fails to explicitly teach a packetizer for manipulating said digital data into a plurality of packets.

13. Lo teaches a packetizer for manipulating said digital data into a plurality of packets (col. 6, lines 26-42).

14. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drott and Lo to packetize the digital data because they both deal with transferring data to a remote device. Furthermore, the teaching of Lo to provide a data packetizer increases the efficiency of transmitting data

from a memory location because the data does not have to be saved as in packet format prior to transmission through the network (Lo, col. 6, lines 25-30).

15. Drottar fails to teach a communication controller for opportunistically establishing communication between said electronic device and at least one remote transport device.

16. Miller teaches a communication controller for opportunistically establishing communication between said electronic device and at least one remote transport device (Chapter 2, Communications Topology, paragraph 1).

17. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Miller to opportunistically establish communications between the electronic device and a remote transport device because they both deal with the transfer of data in packets to a remote device.

Furthermore, the teaching of Miller to establish communications between devices opportunistically would allow establishing wireless communications with a suitable remote storage device simply by approaching the device (Miller Chapter 2, Communications Topology, paragraph 2).

18. As per claim 2, Drottar teaches the electronic device of claim 1 further comprising: a memory controller for singly deleting said digital data that corresponds to said transmitted copies of said packets (col. 7, lines 40-44).

19. As per claim 4, Drottar teaches the electronic device of claim 1 wherein said at least one remote transport device (Abstract; intermediate node switch retransmits packets) comprises a connection to a communication network (col. 5, lines 32-35; send

and receive queue at each switch as well as at source and destination) and a data processor (col. 4, lines 1-9) for sending ones of said transmitted copies of said packets over said communication network (Abstract).

20. Drottter fails to explicitly teach that the remote transport device comprises a transceiver for facilitating communication with external devices.

21. Miller teaches a remote transport device for communicating with external devices (Chapter 2, "Master and Slave Roles"; Slave transceiver communicates with remote external master devices to receive data and then transports data to another link as a master).

22. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottter and Miller to have the remote transport device include a transceiver for communicating with external devices.

Furthermore, the teaching of Miller to use a transceiver as a remote transport device would allow establishing wireless communications with the transport device simply by approaching the device (Miller, Chapter 2, Communications Topology, paragraph 2).

23. As per claim 6, Drottter fails to explicitly teach the electronic device of claim 1 wherein said transmitter is a wireless personal area network (WPAN) transmitter.

24. Miller teaches that the electronic device of claim 1 wherein said transmitter is a wireless personal area network (WPAN) transmitter (Miller, Chapter 2, Communications Topology, paragraph 1).

25. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottter and Miller to have the

transmitter be a WPAN transmitter because they both deal with the transfer of data in packets to a remote device. Furthermore, the teaching of Miller to use a WPAN transmitter would allow establishing wireless communications with a suitable remote storage device simply by approaching the device (Miller, Chapter 2, Communications Topology, paragraph 2).

26. As per claim 7, Drottar teaches the electronic device of claim 1 wherein said transmitter sends multiple copies of each transmitted packet (Abstract; col. 5, lines 10-15).

27. As per claim 8, Drottar teaches the electronic device of claim 1 wherein said memory controller receives a signal acknowledging receipt of said transmitted copy before singly deleting said packet (col. 7, lines 40-44).

28. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drottar, Lo and Miller as applied to claim 1, further in view of Shiimori (US Patent 6,567,983).

29. As per claim 5, Drottar fails to explicitly teach the electronic device of claim 1 wherein said memory controller saves a reduced representation of said digital data.

30. Shiimori teaches a memory manager that saves a reduced representation (thumbnail) of the digital data (col. 12, lines 30-55).

31. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Shiimori to save a reduced representation of said digital data because they both deal with the transfer of data in packets to a remote device. Furthermore, the teaching of Shiimori to save a reduced representation of the digital data would allow displaying representation of the images to

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the user to select files to be transferred or printed while conserving the limited memory available on the client device (Shiimori, col. 13, lines 32-47).

32. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drottar, Lo and Miller as applied to claim 1, further in view of Tomat et al. (US Patent 6,784,925) hereinafter Tomat.

33. As per claim 11, Drottar fails to explicitly teach the electronic device of claim 1 further comprising a file manager providing a user options for selecting ones of said digital data for transmission from said device.

34. Tomat teaches a file manager for selecting digital data to be transmitted from the device (Abstract, col. 16, lines 11-25).

35. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Tomat to provide file manager for selecting digital data for transmission from an electronic device to a remote transport device. Furthermore, the teaching of Tomat to provide a file manager for selecting data for transmission would allow users to elect which data is to be transmitted and deleted from the electronic device.

36. Claims 3, 12-15, 17, 18, 20, 21, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drottar et al. (US Patent 6,181,704) hereinafter Drottar in view of Lo et al (US Patent 6,324,178) hereinafter Lo and further in view of Miller, B., Bluetooth Revealed, published September 21, 2000 by Prentice Hall (hereinafter Miller) and further in view of Tipirneni (US Patent 6,798,533).



37. As per claim 3, Drottter teaches the electronic device of claim 1 further comprising a memory controller which deletes digital data corresponding to said transmitted copies of said packets (col. 7, lines 40-44).

38. Drottter fails to teach an interactive memory controller wherein the user selects the digital data corresponding to transmitted data for deletion.

39. Tipirneni teaches an interactive memory controller wherein the user selects digital data corresponding to transmitted data for deletion (col. 6, line 60-col. 7, line 2; files marked to indicate successful transmission, user may selectively delete files).

40. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottter and Tipirneni because they both deal with the transfer of digital data in packets to a storage device. Furthermore, the teaching of Tipirneni to allow the user to interactively select digital data for deletion after the data has been transmitted would allow the user to verify that transmission was problem free before the data on the electronic device was deleted (Tipirneni, col. 7, lines 1-2).

41. As per claim 12, Drottter teaches a method for managing memory resources on an electronic device comprising the step transmitting a copy of a single packet to at least one neighboring electronic device (col. 1, lines 40-46; sends one pack, receives a 'NAK' for the packet).

42. Drottter fails to teach the step of packetizing the data from the electronic device.

43. Lo teaches a packetizing the stored data into a plurality of packets (col. 6, lines 26-42).

44. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Lo to packetize the digital data because they both deal with transferring data to a remote device. Furthermore, the teaching of Lo to provide a data packetizer would allow transmitting the data from a memory location without first saving the data in packet format prior to transmission through the network thus conserving memory space on the electronic device (Lo, col. 6, lines 25-30).

45. Drottar fails to teach the step of establishing a communication link with at least one neighboring electronic device.

46. Miller teaches the step of establishing a communications link between said electronic device and a neighboring electronic device (Chapter 2, Communications Topology, paragraph 1).

47. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Miller to opportunistically establish communications between the electronic device and a remote transport device because they both deal with the transfer of data in packets to a remote device.

Furthermore, the teaching of Miller to establish communications between devices opportunistically would allow establishing wireless communications with a suitable remote storage device simply by approaching the device (Miller Chapter 2, Communications Topology, paragraph 2)

48. Drottar fails to teach the step of and communicating said transmitted copy from said at least one neighboring electronic device to a collection host.

49. Tipirneni teaches transmitting data stored on an electronic device 100 to a neighboring device 50 which transfers the data to a remote collection host 110 (Fig. 1, col. 3, lines 25-39).

50. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Tipirneni to transmit data from a neighboring device to a remote collection host because they both deal with transferring data from one location to another. Furthermore, the teaching of Tipirneni to transmit data from the neighboring device to remote collection host would allow centralized access to data after it is uploaded from the electronic device via a local connection (Tipirneni, col. 4, lines 48-59).

51. As per claim 13, Drottar teaches the method of claim 12 further comprising the step of deleting said data corresponding to said single packet after said associated copy is transmitted (col. 7, lines 40-44).

52. As per claim 14, Drottar teaches the method of claim 12 further comprising deleting the data corresponding to said single packet after the associated copy is transmitted (col. 7, lines 40-44).

53. Drottar fails to teach that the deleting step is done selectably.

54. Tipirneni teaches an interactive memory controller wherein the user selects digital data corresponding to transmitted data for deletion (col. 6, line 60-col. 7, line 2; files marked to indicate successful transmission, user may selectively delete files).

55. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Tipirneni because they both

deal with the transfer of digital data in packets to a storage device. Furthermore, the teaching of Tipirneni to allow the user to interactively select digital data for deletion after the data has been transmitted would allow the user to verify that transmission was problem free before the data on the electronic device was deleted (Tipirneni, col. 7, lines 1-2).

56. As per claim 15, Drottar fails to teach the method of claim 12 wherein said establishing step comprises the steps of: broadcasting a hail within a transmission radius centered about said electronic device; receiving reply transmissions from at least one neighboring electronic device within said transmission radius; and creating a data channel between said electronic device and said at least one neighboring electronic device.

57. Miller teaches that the step of establishing communication with the neighboring device includes broadcasting a hail within a transmission radius centered about said electronic device (Chapter 6, "Inquiry Operation", device searches for other devices in its vicinity by transmitting an inquiry); receiving reply transmissions from at least one neighboring electronic device within said transmission radius (Chapter 6, "Inquiry operation", neighboring device responds with clock information and its address); and creating a data channel between said electronic device and said at least one neighboring electronic device (Chapter 6, "Page State", device invites another specified device to join a piconet for communication purposes).

58. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Miller to establish a

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communication link by initiating a general hail, receiving a response from a neighboring device and then creating a communications link to the neighboring electronic device because they both deal with the transmission of data in packets to a remote device. Furthermore, the teaching of Miller to establish communication links by broadcasting a hail and receiving transmissions from a neighboring device would allow an electronic device to discover a suitable path to another device, whenever the two devices came into close proximity (Miller, Chapter 2, Communications Topology, paragraph 2).

59. As per claim 17, Drottar teaches the method of claim 12 further comprising performing the deleting step after receiving an acknowledgement.

60. Drottar fails to teach that the acknowledgement is issued from the collection host addressed to the electronic device.

61. Tipirneni teaches transmitting an acknowledgement from the collection host that (col. 6, lines 35-62; TCP/IP used to track successful transmission to the host; successful transmission indicated by change to file name at the uploader).

62. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Tipirneni to delete packets from the electronic device after an acknowledgement from the host because they both deal with the transmission of data in packets. Furthermore, the teaching of Tipirneni to delete packets after an acknowledgement from the host server would prevent the loss of data by not removing the data from the electronic device until the data was confirmed to be on the server.

63. As per claim 18, Drottar fails to explicitly teach the method of claim 12 further comprising the step of reassembling said received packets at said collection host into a copy of said data stored on said electronic device.

64. Tipirneni teaches reassembling said received packets at said collection host into a copy of said data stored on said electronic device (Abstract; col. 6, lines 28-62; data transmitted in packets to transfer data files to the host server via TCP/IP and FTP).

65. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Tipirneni to reassemble packets at the collection host into a copy of the data on the electronic device because they both deal with the transmission of data in packets. Furthermore, the teaching of Tipirneni to reassemble the packets into a copy of the file on the electronic device would allow the data on the electronic device to be widely accessible from a central location (col. 2, lines 1-10).

66. As per claim 20, Drottar teaches the method of claim 12 further comprising the step of checking said transmitted copy for errors (Abstract; col. 7, lines 61-67).

67. As per claim 21, Drottar teaches a means for singly transmitting copies of said packets to surrounding transport devices (col. 1, lines 40-46; sends one packet and receives a 'NAK' for the packet).

68. Drottar fails to teach a means for establishing a communications link by hailing surrounding devices and establishing communications with devices responding to the hail.

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69. Miller teaches establishing communication with the neighboring device by broadcasting a hail within a transmission radius centered about said electronic device (Chapter 6, "Inquiry Operation", device searches for other devices in its vicinity by transmitting an inquiry); receiving a response from at least one neighboring electronic device within said transmission radius (Chapter 6, "Inquiry operation", neighboring device responds with clock information and its address); and creating a data channel between said electronic device and said at least one neighboring electronic device (Chapter 6, "Page State", device invites another specified device to join a piconet for communication purposes).

70. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Miller to establish a communication link by initiating a general hail, receiving a response from a neighboring device and communications with devices responding to the hail because they both they both deal with the transmission of data in packets to a remote device. Furthermore, the teaching of Miller to establish communication links by broadcasting a hail and receiving transmissions from a neighboring device would allow an electronic device to discover a suitable path to another device whenever the two devices came into close proximity (Miller, Chapter 2, Communications Topology, paragraph 2).

71. Drottar fails to explicitly teach a means of packetizing the data stored in a memory resource.

72. Lo teaches a packetizer for manipulating said digital data into a plurality of packets (col. 6, lines 26-42).

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73. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Lo to packetize the digital data because they both deal with transferring data to a remote device. Furthermore, the teaching of Lo to provide a data packetizer increases the efficiency of transmitting data from a memory location because the data does not have to be saved as in packet format prior to transmission through the network (Lo, col. 6, lines 25-30).

74. Drottar teaches that the packets are transmitted with sequence numbers but fails to explicitly teach a means for reassembling the packets at a collection point.

75. Tipirneni teaches that the packets are forwarded to a collection point and reassembled into a copy of the original data (Abstract; col. 6, lines 28-62; data transmitted in packets to transfer data files to the host server via TCP/IP and FTP).

76. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Tipirneni to reassemble packets at the collection host into a copy of the data on the electronic device because they both deal with the transmission of data in packets. Furthermore, the teaching of Tipirneni to reassemble the packets into a copy of the file on the electronic device would allow the data on the electronic device to be widely accessible from a central location (col. 2, lines 1-10).

77. As per claim 23 as construed Drottar teaches that system of claim 21 further comprising a means for deleting portions of the original data corresponding to said transmitted copies of said packets (col. 7, lines 40-44).



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78. Drottar fails to teach a means whereby the deletion of portions of the original data is done selectively.

79. Tipirneni teaches an interactive memory controller wherein the user selects digital data corresponding to transmitted data for deletion (col. 6, line 60-col. 7, line 2; files marked to indicate successful transmission, user may selectively delete files).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Tipirneni because they both deal with the transfer of digital data in packets to a storage device. Furthermore, the teaching of Tipirneni to allow the user to interactively select digital data for deletion after the data has been transmitted would allow the user to verify that transmission was problem free before the data on the electronic device was deleted (Tipirneni, col. 7, lines 1-2).

80. As per claim 24, Drottar teaches the system of claim 21 further comprising: means for checking errors in said forwarded copies (col. 5, lines 10-20).

81. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drottar, Lo, and Miller as applied to claim 1 in view of Official Notice.

82. As per claims 9 and 10, Drottar fails to teach that the electronic device further comprises a switch for deactivating the transceiver and that the switch is selectable by the user.

83. The Office takes Official Notice that the use of user selectable on/off switches with portable electronic devices was well known in the art at the time the applicant's invention was made. It would have been obvious to one of ordinary skill in the art to include an on off switch to allow users to deactivate the transceiver to conserve battery

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power or to prevent transmission during times when radio transmission would not be allowed such as on air planes.

84. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drottar, Lo, Miller and as applied to claim 12 in view of further in view of Perkins et al. (US Patent 6,496,477) hereinafter Perkins.

85. As per claim 16, Drottar fails to teach the method of claim 12 further comprising the step of: transmitting additional copies of said single packet to other of said at least one neighboring electronic device.

86. Perkins teaches transmitting additional copies of said single packet to at least one neighboring electronic device (col. 9, line 50 – col. 10, line 25).

87. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Perkins to transmit additional copies of the single packet to another neighboring device because they both deal with the transmission of data in packets across a network. Furthermore, the teaching of transmitting additional packet copies via a neighboring connection would increase the reliability of reception at the packet at the final destination by providing diverse analog and digital paths for the data packets (Perkins, Abstract, col. 2, lines 15-25).

88. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drottar, Lo, Miller and as applied to claim 12 in view of further in view of Shiimori (US Patent 6,567,983), and further in view of Kieffer, R., Image Thumbnailing Whitepaper, published July 19, 1998 by Alodar Systems Inc. (hereinafter Kieffer).

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89. As per claim 19, Drottter fails to explicitly teach the method of claim 12 further comprising the steps of: partially reassembling said packets at said electronic device into a thumbnail version of said data stored on said electronic device prior to said deleting step; and storing said thumbnail version on said electronic device.

90. Shiimori teaches saving a reduced representation (thumbnail) of the digital data (col. 12, lines 30-55). The rationale for combining Shiimori with Drottter is as described for claim 5 above.

91. Kieffer teaches constructing a thumbnail out of portions of the data from the original image (Fig. 1, subsampling to produce a thumbnail by taking only a subset of the existing information).

92. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Kieffer and Shiimori because they both deal with producing thumbnails to reduce the required storage space for data.

Furthermore, the teaching of Kieffer to produce thumbnails by using portions of the original data allows reducing the amount of storage to display an image using limited amounts of computing resources (Kieffer, Subsampling and Averaging).

93. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drottter, Lo, and Tipirneni as applied to claim 21 above, further in view of Shiimori (US Patent 6,567,983).

94. As per claim 22 as construed, Drottter fails to teach the system of claim 21 further comprising: means for saving reduced copies of said original data from ones of said packets corresponding to said transmitted copies.

95. Shiimori teaches a means for saving reduced copies (thumbnails) of said original data from ones of said packets corresponding to said transmitted copies (col. 12, lines 30-55).

96. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Drottar and Shiimori to save a reduced representation of said digital data because they both deal with the transfer of data in packets to a remote device. Furthermore, the teaching of Shiimori to save a reduced representation of the digital data would allow displaying representation of the images to the user to select files to be transferred or printed while conserving the limited memory available on the client device (Shiimori, col. 13, lines 32-47).

### ***Conclusion***

97. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Opportunistic transmission of portably stored data".

- |      |                |                    |   |
|------|----------------|--------------------|---|
| i.   | Allen          | US 2003/0036974 A1 | Remote collection host  |
| ii.  | Morag et al.   | US 6,058,399       | File uploading to a host                                      |
| iii. | Moore et al.   | US 2002/0129170    | WPAN opportunistic connections and service discovery          |
| iv.  | Solondz et al. | US 2002/0146980    | Diverse air paths to increase packet transmission reliability |


- v. Gatherer et al. US2002/0065058 Bluetooth transmission to multiple slave units
- vi. Muller et al. US 6,021,132 Packetizing and transmitting single packets to a network

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac R Clark whose telephone number is (571)272-3961. The examiner can normally be reached on Monday-Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irc

 **JOHN FOLLANSBEE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**